



Agriculture and
Agri-Food Canada

Agriculture et
Agroalimentaire Canada

Canada

A large, vibrant red maple leaf is positioned on the left side of the slide, partially overlapping the title text. The background of the slide features a landscape with a yellow field, a line of trees, and a blue sky with light clouds.

Impacts of the 2017 Drought on the Canadian Prairies

Trevor Hadwen

*Agriculture and Agri-Food Canada
National Agroclimate Information Service
Regina, Saskatchewan, Canada*

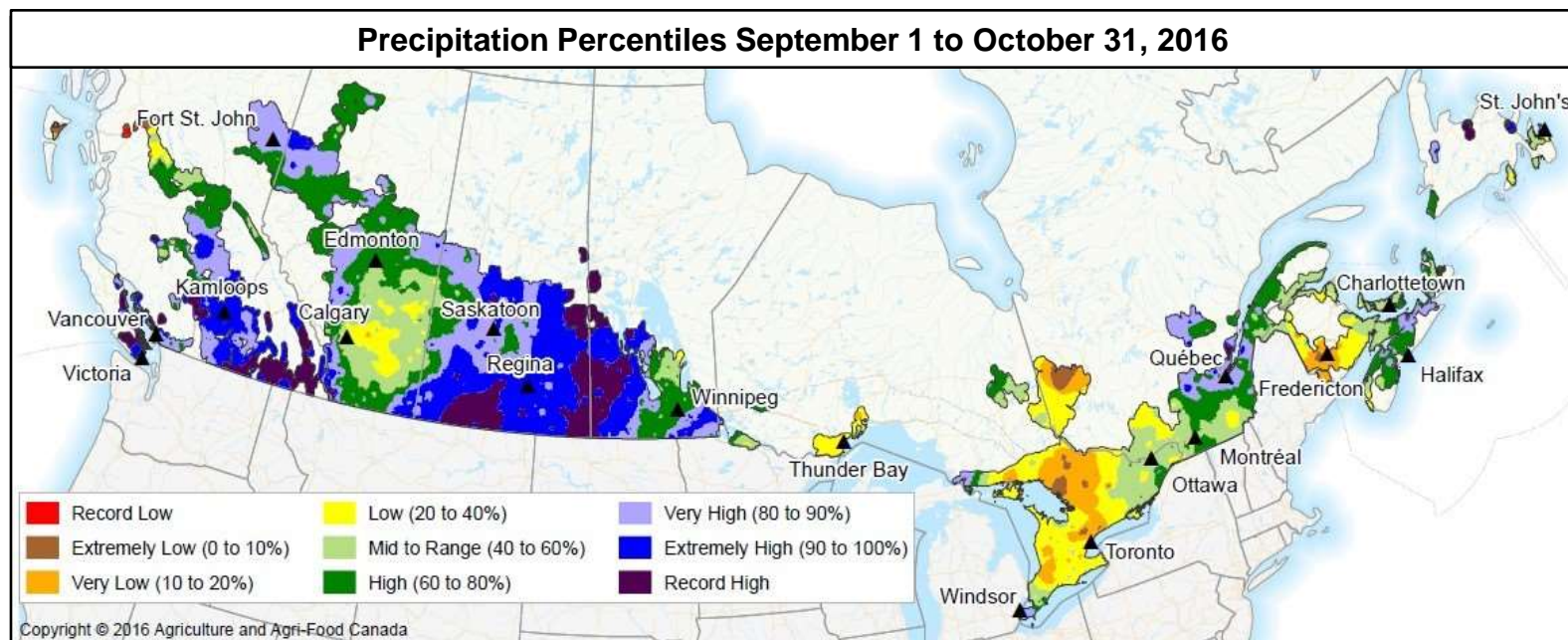
*North American Drought Monitor Forum
Calgary, Alberta, May 1-3, 2018*

Overview ... What happened in 2017

- Another challenging year with extremes of wet and dry across Western Canada
- British Columbia faced its worst fire season on record.
- The southern prairies faced their driest summer in 70 years.
- Despite the climate conditions, agricultural production ended up better than initially expected.



Conditions going into Winter...

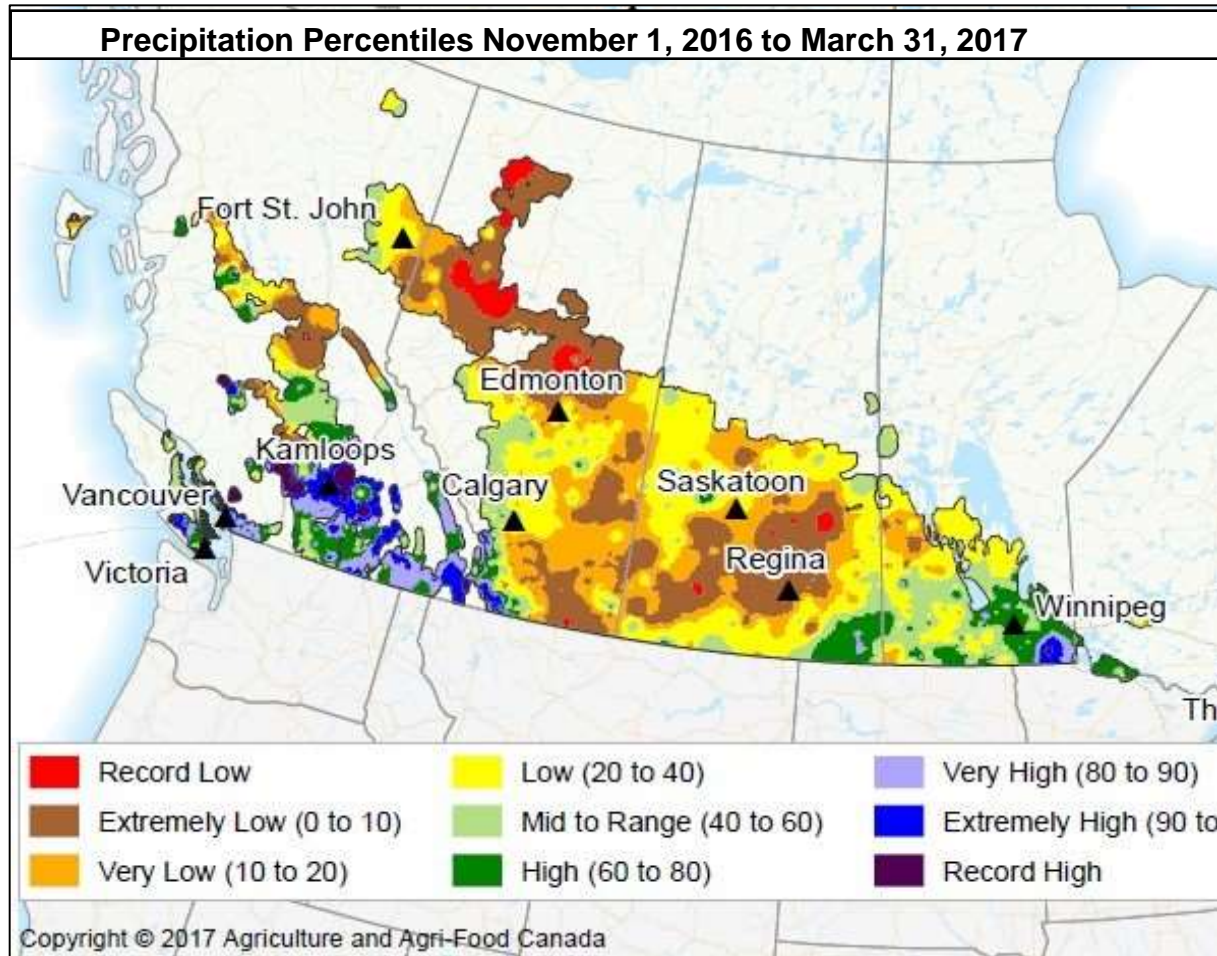


Precipitation throughout the Fall was well above-normal in most of Western Canada, and below average for much of southern Ontario and parts of the Atlantic region.

2.4 million acres of crops were stranded in fields in northern ag regions in British Columbia, Alberta and Saskatchewan.



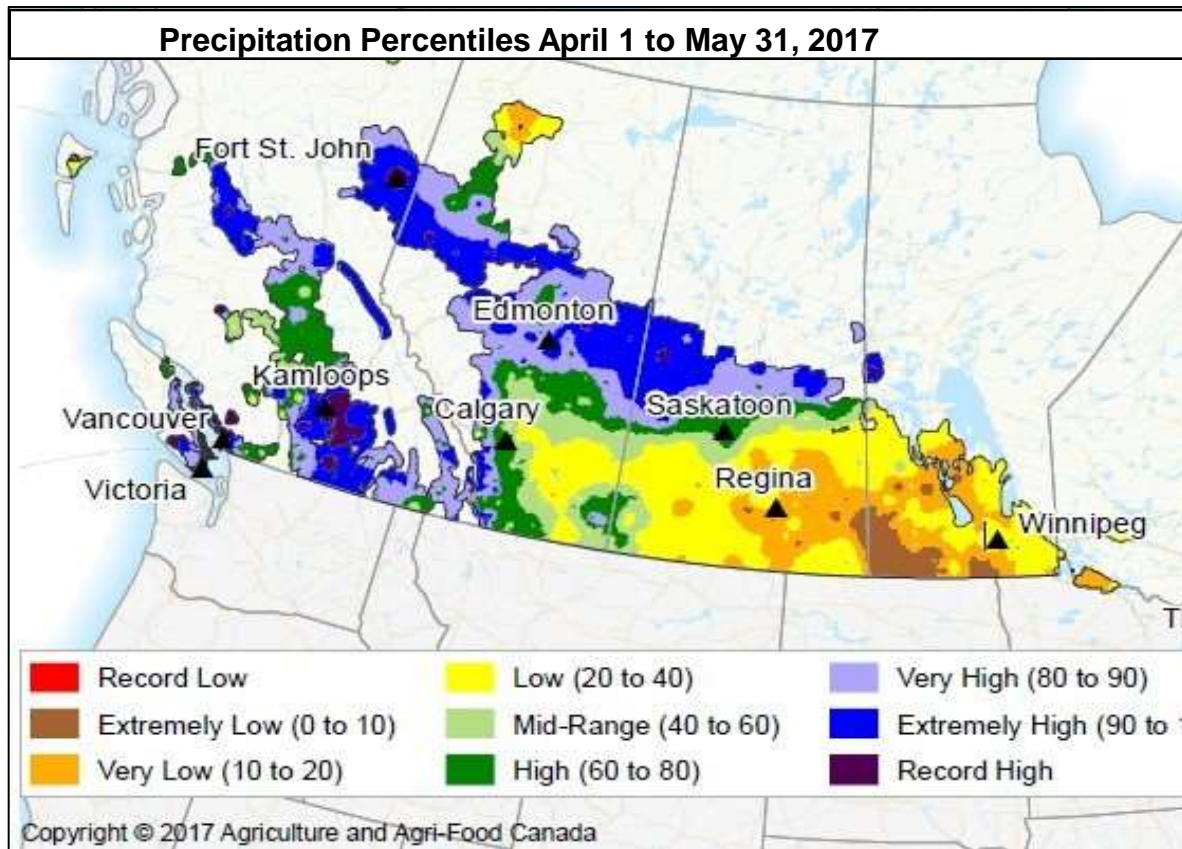
The 2016 Winter season ...



The Prairie region received significantly below-normal winter precipitation with pockets in northern Alberta and central Saskatchewan reaching record dry conditions.

Overall, temperatures were above-normal throughout Canada with the exception of British Columbia and southwestern Alberta.

Spring Conditions ...

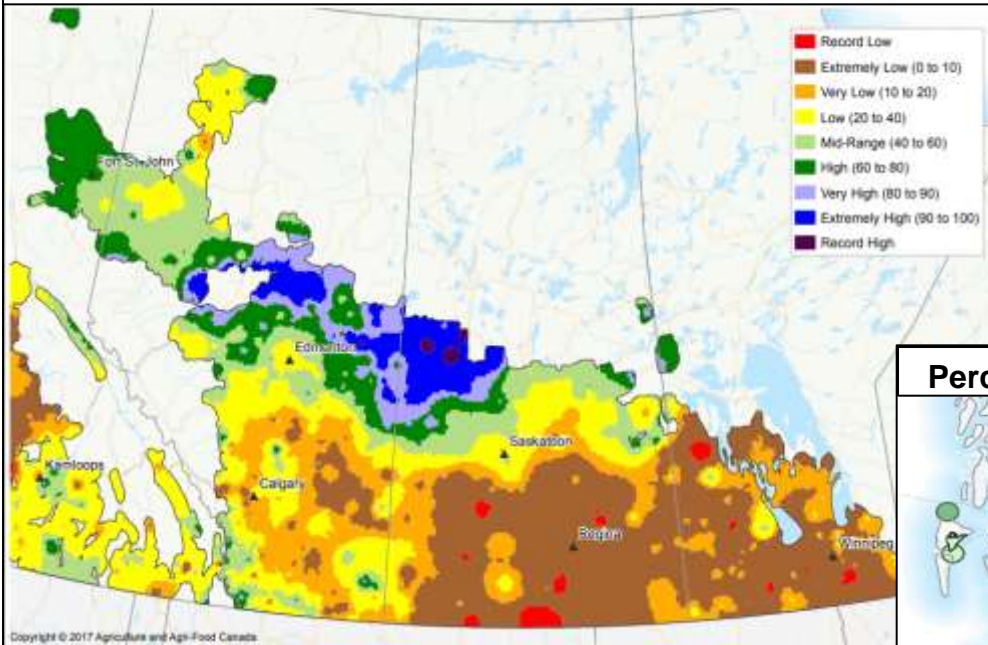


Spring precipitation was well-below normal for much of the southern Prairies.

However, subsoil moisture reserves and water supplies were in good condition as a result of wet conditions the previous fall.

Summer Conditions...

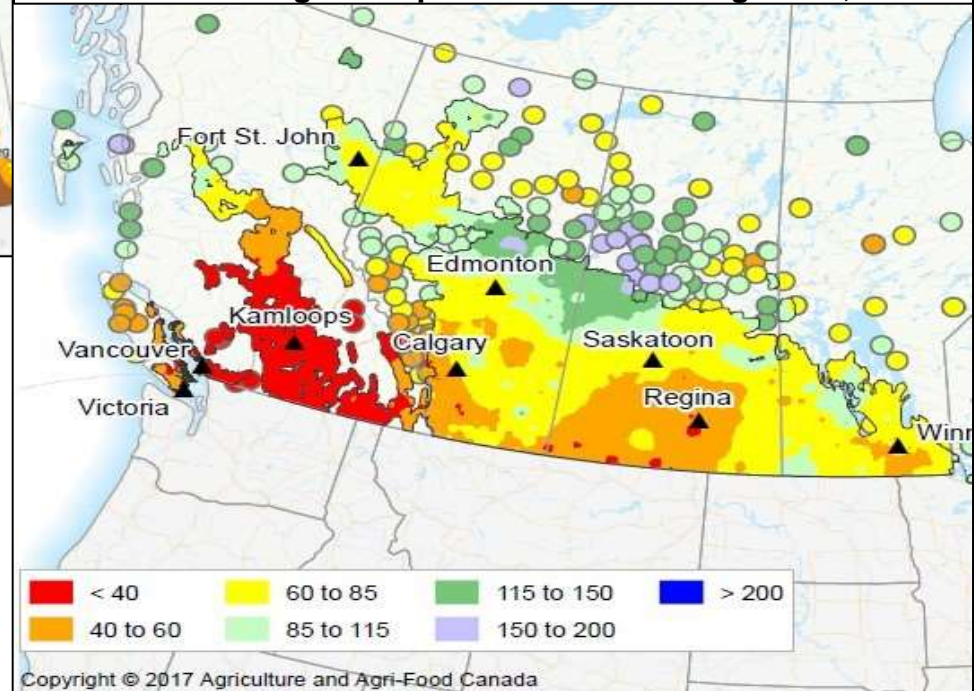
Precipitation Percentiles April 1 to August 31, 2017



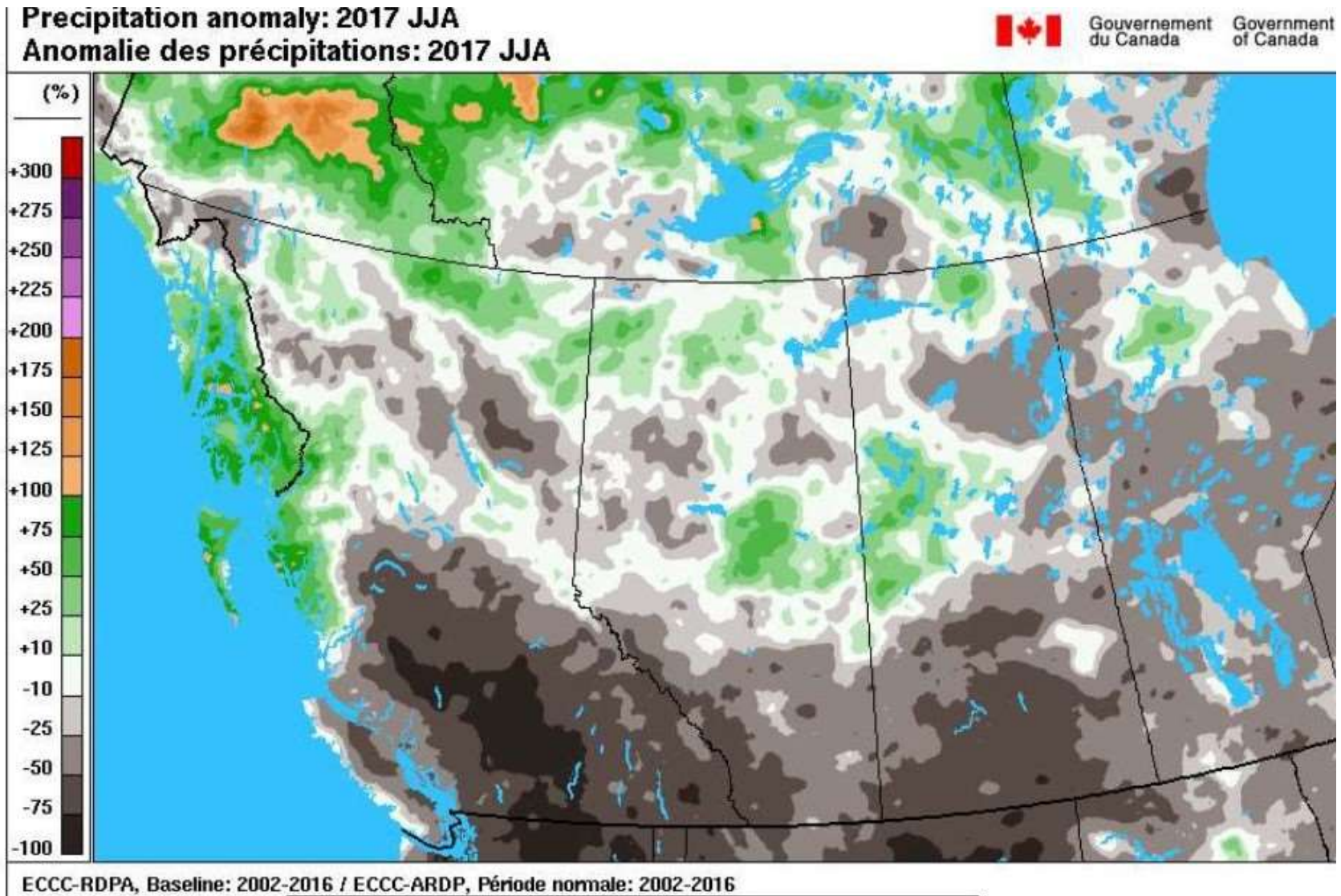
Hot, dry, windy conditions resulted in wildfires in BC and drought across the southern Prairie region

During peak growing season for crops, southern Saskatchewan and Alberta received very little to record low precipitation.

Percent of Average Precipitation June 3 to August 31, 2017

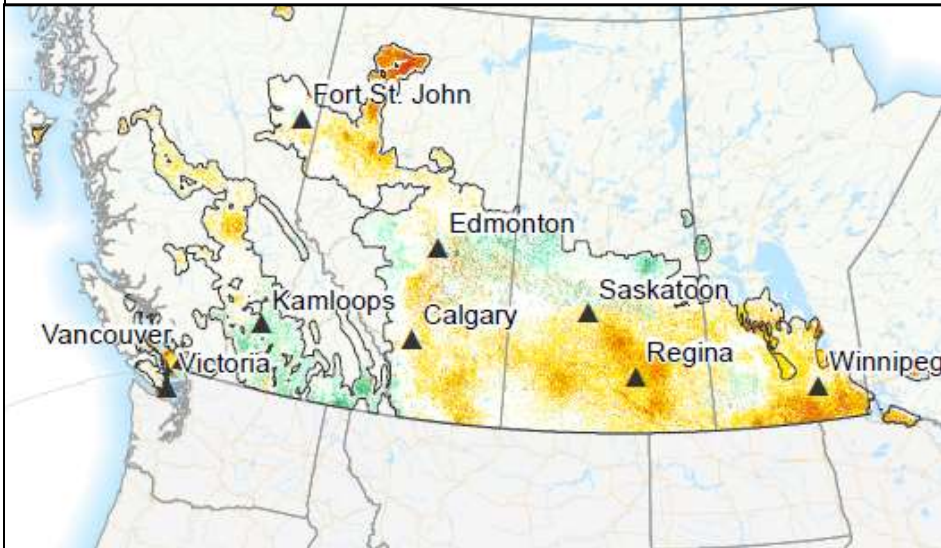


June - August Precipitation Anomaly

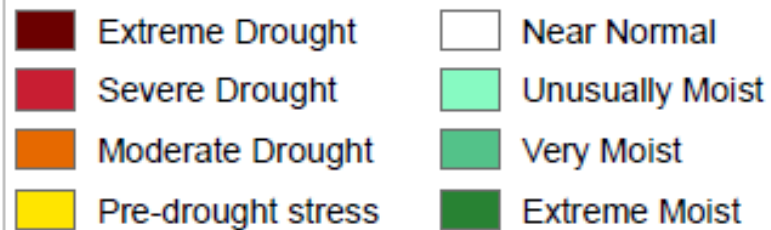
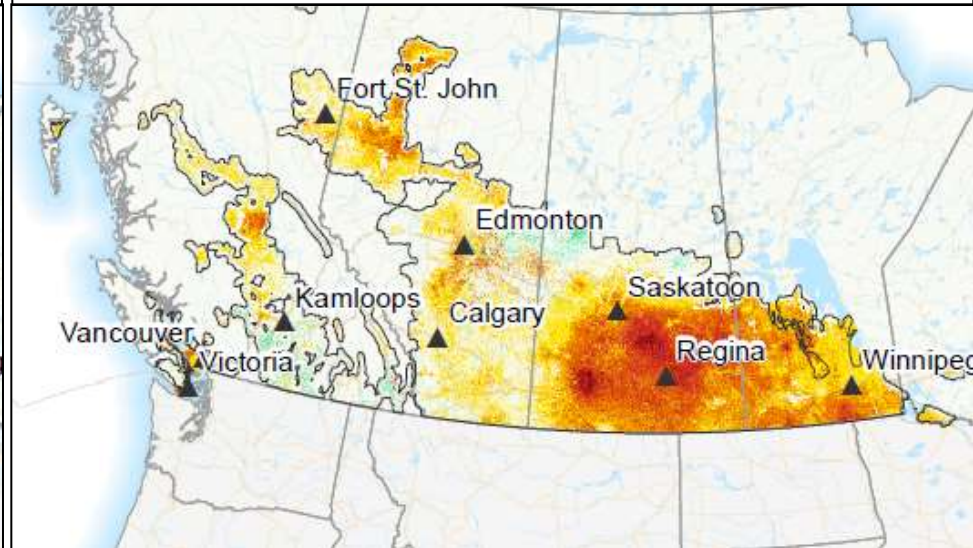


Vegetation Drought Response Index

June 12 to June 18, 2017

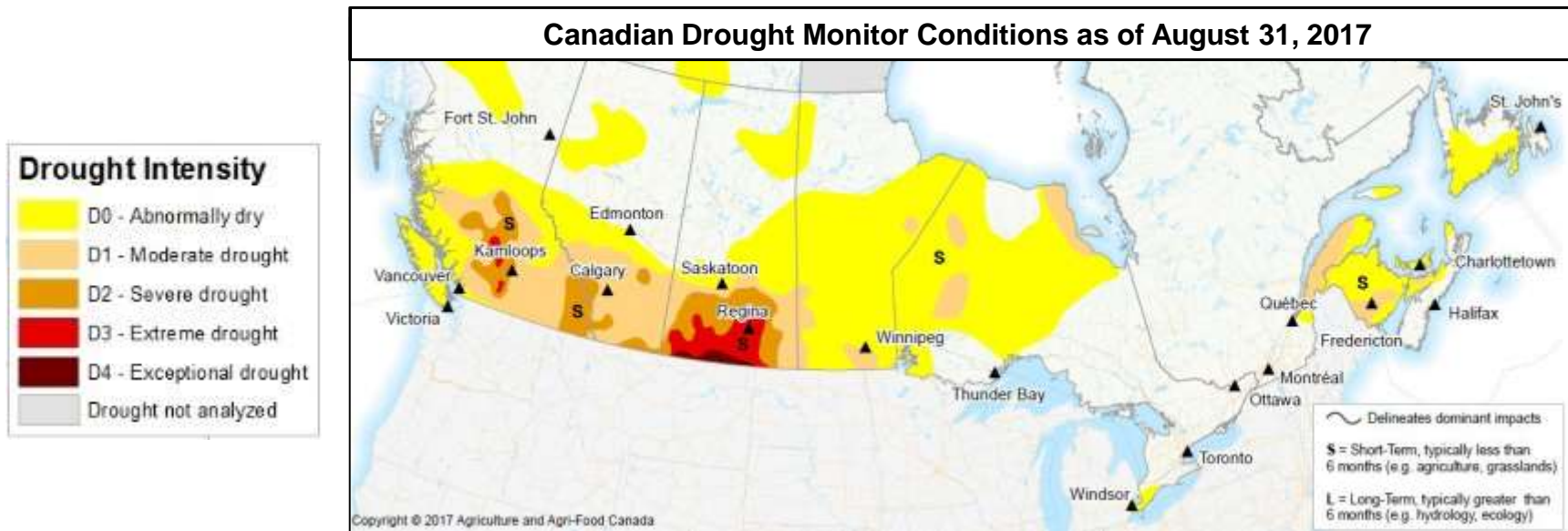


July 3 to July 9, 2017



Drought in Western Canada...

Drought conditions emerged rapidly in June and deepened into August. The drought caused heat stress, accelerated crop maturity, negatively impacted crops and pasture yields and quality, reduced water supplies and quality and resulted in wildfires.



Saskatchewan experienced one of the driest Julys in more than a century.

Swift Current – **driest year on record** (132 years of climate data).

Moose Jaw – **driest year on record** (117 years of climate data).

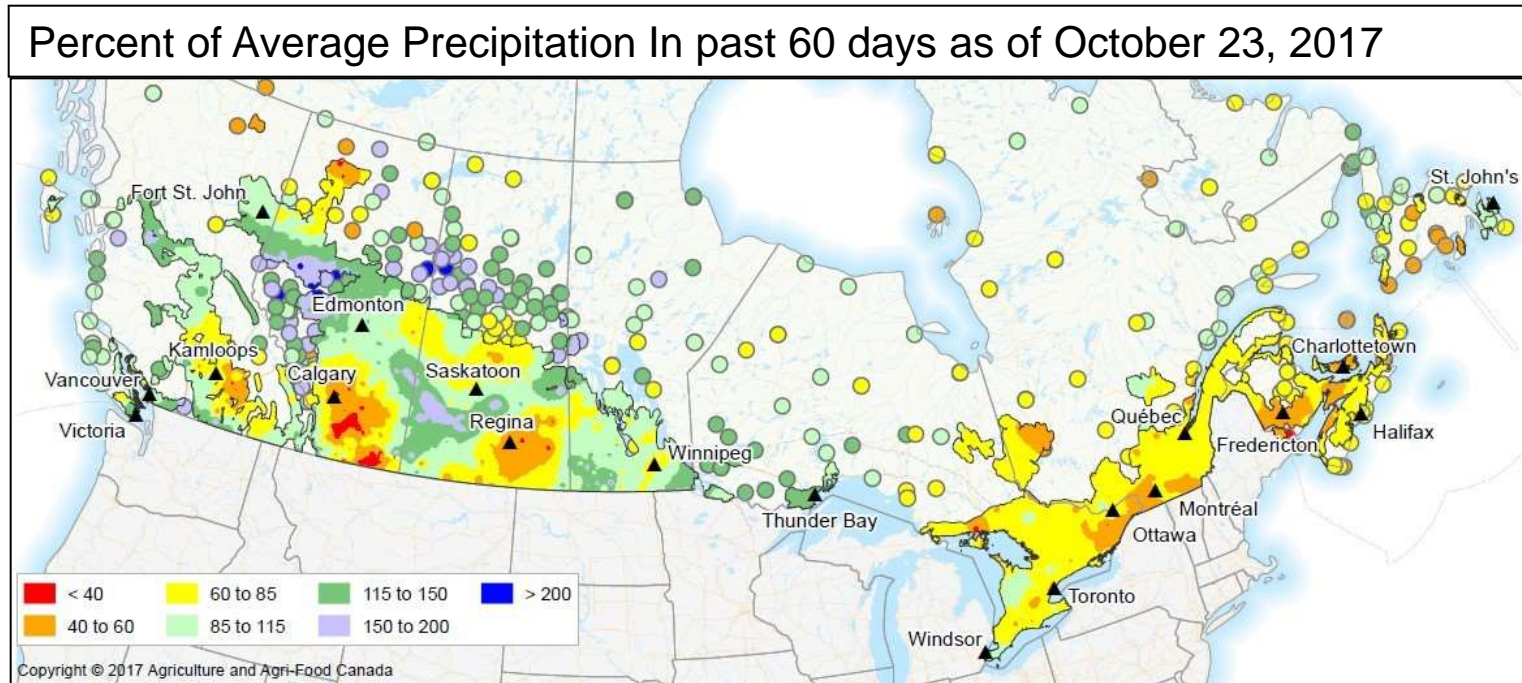
Regina – **2nd driest year on record** (112 years of climate data).

Highlighted Agricultural impacts ...

- Drought and record temperatures in southern Alberta and Saskatchewan over the summer resulted in crop stress, early harvest, reduced yields and quality, livestock feed and water shortages, and wildfires.
- Localized wildfires on pastures in southern Alberta and Saskatchewan damaged pasture, crops, feed supplies, agricultural infrastructure and resulted in livestock losses.
- Livestock mortality due to water scarcity and salinization. On July 7, more than 200 cows/calves were found dead in a Saskatchewan pasture caused by water salinization (salt poisoning), heat stress and dehydration. Sulphate levels in the water were reported to be more than three times the lethal concentration

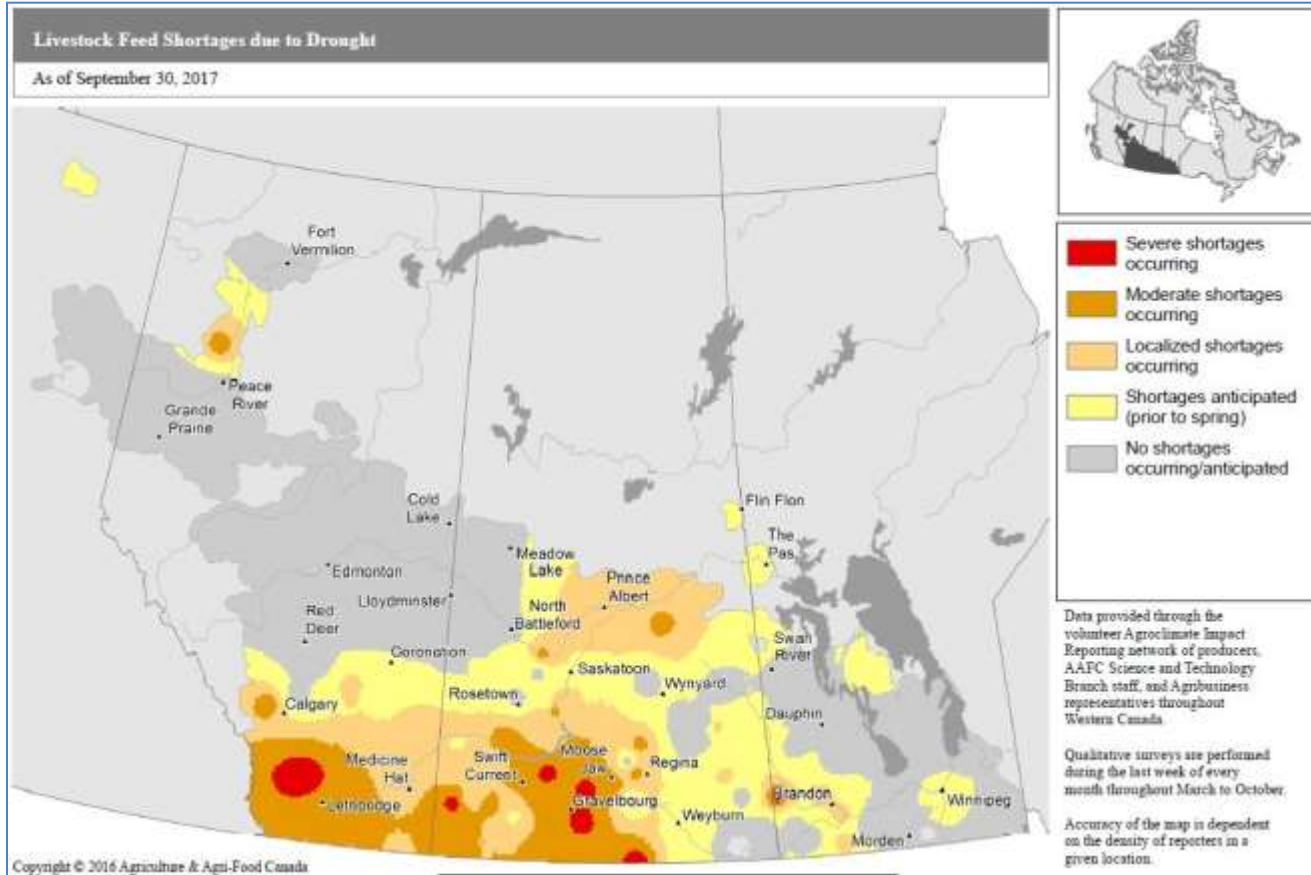


Fall Conditions...



Harvest was advanced by warm, dry weather and was completed well ahead of the 5-year average in western Canada. Rain was finally received in October in the driest areas, but it did little to alleviate drought conditions.

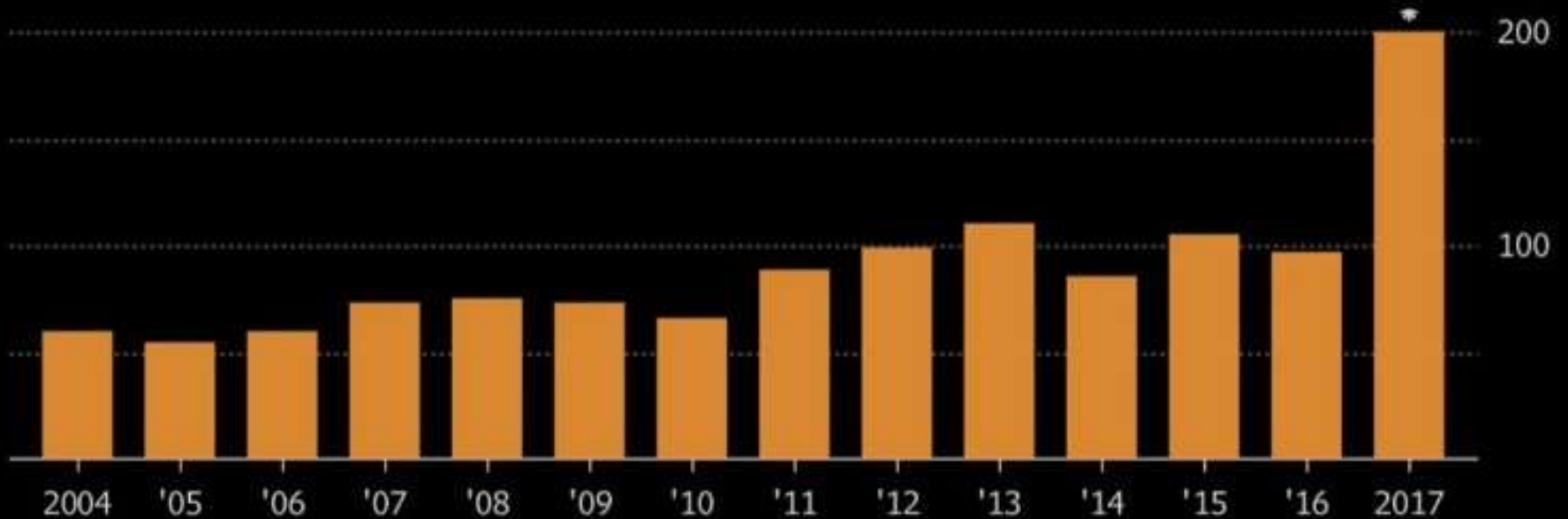
Livestock Feed Shortages



Livestock Feed Costs

Feed Frenzy

With pastures drying up, Canadian ranchers forced to buy more hay, sending prices surging

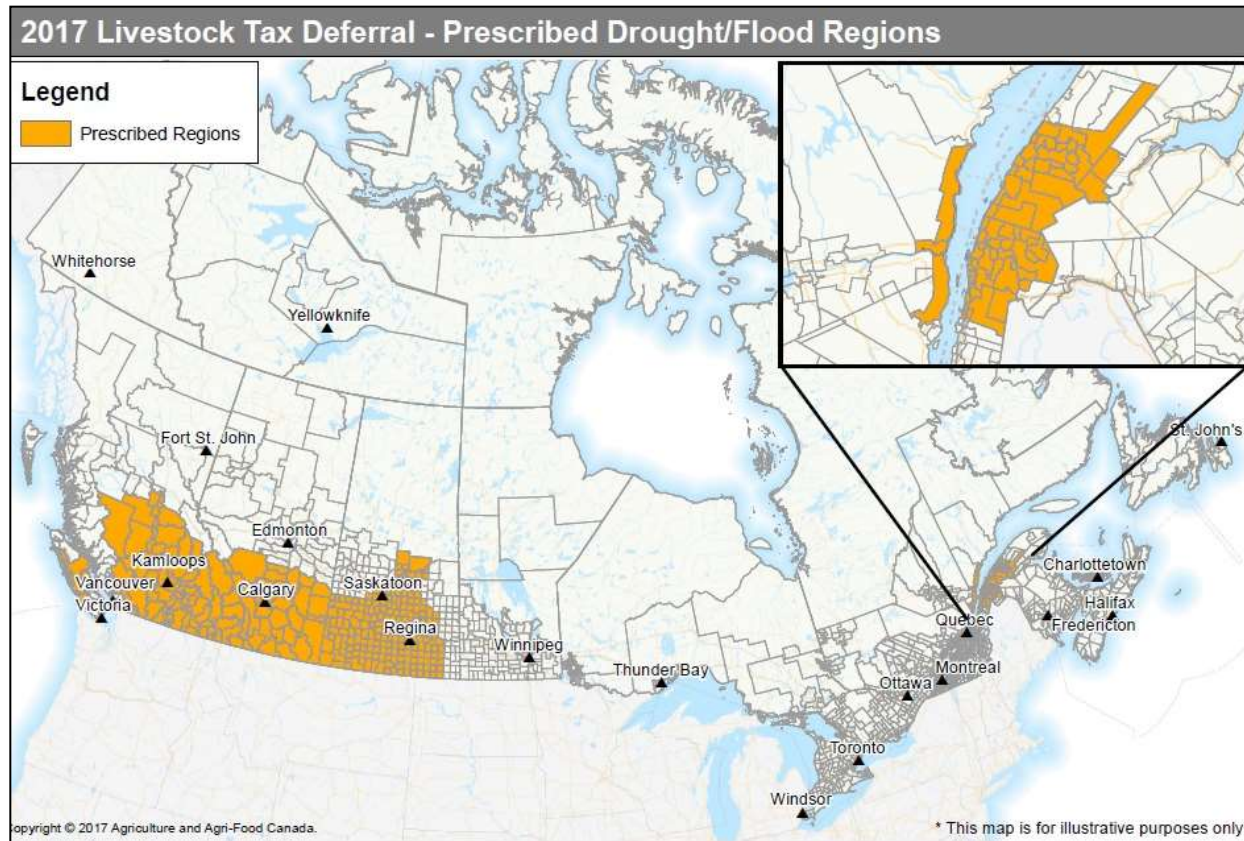


* Prices have risen as high as C\$200 a ton, double the average for 2016

Source: Manitoba Agricultural Services Corp.

Bloomberg

Livestock Tax Deferral Provision



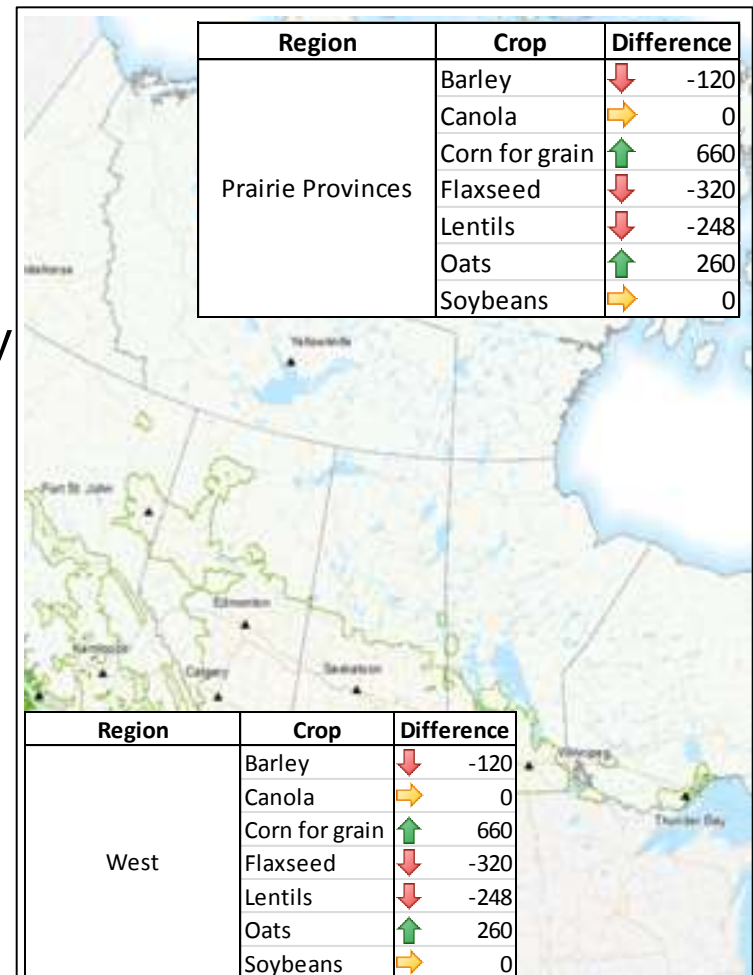
The Livestock Tax Deferral provision allows farmers who sell part of their breeding herd due to drought or flooding in prescribed regions to defer a portion of sale proceeds to the following year.

The Outcome...

- Yields and quality were variable, but the year overall turned out better than initially forecast.
- Statistics Canada is the authoritative source for estimates and production numbers.

www.statcan.gc.ca/daily-quotidien/170919/dq170919b-eng.htm

www.statcan.gc.ca/dai-quo/ssi/homepage/rel-com/theme920-eng.htm





Thank You

Trevor Hadwen
trevor.hadwen@agr.gc.ca